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(54) Title: NOVEL CHROMOSOME FRAGMENT AND ITS USE AS A VECTOR

## (57) Abstract

The present invention relates to the field of molecular genetics and in particular to artificial chromosomes, to their preparation in particular using telomere-directed chromosome fragmentation techniques and to their use as DNA vectors, for instance for application in gene therapy and animal transgenesis. Vectors of the invention comprise a chromosome fragment which fragment is at least partly responsible for centromere function of the parent chromosome and is capable of replication and segregation during cell cycle, and which is of such a size that it can be resolved using gel electrophoresis. Suitable fragments are derived from the human Y chromosome.